

**Amendments to the Claims:**

This claim listing will replace all prior versions and listings of claims in the application:

**Claim Listing:**

1. (Currently Amended) A method for identifying a compound that inhibits p21-mediated induction of senescence-associated changes in cellular gene expression in a mammalian cell, the method comprising the steps of:
  - (a) treating the cell in the absence of the compound with an agent that induces p21 expression and p21-mediated induction of senescence, or culturing the cell in the absence of the compound under conditions that induce p21 expression and p21-mediated induction of senescence;
  - (b) assaying the cell that is treated according to step (a) for the level of expression of a gene that is known to be induced or repressed by p21 expression;
  - ~~(a c)~~ (c) treating the mammalian cell in the presence and absence of the compound with an the agent that induces p21 expression and p21-mediated induction of senescence, or culturing the mammalian cell in the presence and absence of the compound under conditions that induce p21 expression and p21-mediated induction of senescence;
  - ~~(b d)~~ (d) assaying the mammalian cell in which p21 expression has been induced in that is treated according to step (a c) for induction or repression of the level of expression of a the cellular gene by p21 gene expression; and
  - ~~(e e)~~ (e) identifying the compound as an inhibitor of induction or repression of senescence-associated changes in cellular gene expression by p21 if the level of expression of the gene that is induced by p21 assayed in step (d) is less than the level of expression of the gene assayed in step (b), or the level of expression of the gene that is repressed by p21 assayed in step (d) is greater than the level of expression of the gene in assayed in step (b) induced or repressed by p21 is induced or repressed to a lesser extent, in the presence of the compound than in the absence of the compound.
2. (Canceled)

3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Previously presented) The method of claim 1, wherein expression of the cellular gene is assayed using an immunological reagent.
7. (Previously presented) The method of claim 1, wherein expression of the cellular gene is assayed for an activity of the cellular gene product.
8. (Previously presented) The method of claim 1, wherein expression of the cellular gene is assayed by hybridization of cellular RNA to a nucleic acid complementary to the cellular gene.
- 9.-25. (Canceled)
26. (Currently amended) A method for identifying a compound that promotes p21-mediated induction of senescence-associated changes in cellular gene expression in a mammalian cell, the method comprising the steps of:
  - (a) treating the cell in the absence of the compound with an agent that induces p21 expression and p21-mediated induction of senescence, or culturing the cell in the absence of the compound under conditions that induce p21 expression and p21-mediated induction of senescence;
  - (b) assaying the cell that is treated according to step (a) for the level of expression of a gene that is known to be induced or repressed by p21 expression;
  - (c) treating the mammalian cell in the presence of the compound with an agent that induces p21 expression and p21-mediated induction of senescence, in the presence or absence of the compound or culturing the mammalian cell under conditions that induce p21-induced senescence in the presence and absence of the compound;
  - (d) assaying the mammalian cell in which p21 expression has been induced in that is treated according to step (c) for p21-mediated repression or induction the

level of expression of a the cellular gene that is repressed or induced by p21 gene expression; and

(e e) identifying a compound as a compound that promotes senescence-associated changes in cellular gene expression by p21 if the level of expression of the gene that is repressed by p21 assayed in step (d) is less than the level of expression of the gene assayed in step (b) repressed to a greater extent in the presence of the compound, or if the level of expression of the gene that is induced by p21 assayed in step (d) is induced to a greater than the level of the gene assayed in step (b) extent in the presence of the compound.

27. (Previously presented) The method of claim 26, wherein the mammalian cell is assayed for the cellular gene that is induced by p21.
28. (Canceled)
29. (Previously presented) The method of claim 26, wherein expression of the cellular gene is assayed using an immunological reagent.
30. (Previously presented) The method of claim 26, wherein expression of the cellular gene is assayed for an activity of the cellular gene product.
31. (Previously presented) The method of claim 26, where expression of the cellular gene is assayed by hybridization of cellular RNA to a nucleic acid complementary to the cellular gene.
- 32-38. (Canceled)